Dr. Alvaro Munoz Davila Jefe Laboratorio Investigaciones Veterinarias Finca Nacional LA AURORA Guatemala City, Guatemala

Dear Dr. Davila:

April 3, 1951 you wrote to Dr. P R. Edwards at the Communicable Disease Center, Chamblee, Ga., sending a group of Salmonella cultures labelled 2163, 2163-A, 2180-A, 2181-A, 2181-B, 2181-C, 2181-D. At that time, these cultures could only be classified as non-motile, group D, Salmonella, and Dr. Edwards remarked that "it was impossible to assign any of these cultures to definite types due to non-motility and consequent lackoof H antigens.

Since that time, new genetic techniques have been developed which have made it possible to identify the capacity to form flagella in previously non-motile variants, and thus to identify 2163 as a non-motile variant of S. dublin, in conformity with Dr. Edwards' speculation on the basis of source and biochemical behavior. We are working with other cultures in this group that Dr. Edwards had preserved; unfortunately, some of them are rather rough. He has done me the kindness of providing your name and address as the source of these cultures so that I could make a direct request for further information.

It appears likely that other cultures in this outbreak are also S. dublin, but we have not yet completed our studies on them. If so, this outbreak would provide an excellent example of the utility of our techniques in unmasking cultures that are untypable owing to non-motility. If possible, I would like to use it in a forthcoming publication. Your assistance in the following respects would be greatly appreciated:

- 1) Can you tell more details of the origin of these cultures? Were they from the same outbreak in one locality? How many animals were involved? Have you subsequently isolated similar non-motile Salmonellas from similar sources?
- 2) Is it possible that you still have the cultures from this or related outbreaks? As mentioned, some of those preserved by Edwards have become rather rough, which makes our work somewhat more difficult. If you could provide duplicate or additional cultures of this outbreak, it would be most helpful.
 - 3) Have you noticed motile Salmonella dublin from these same animals?

 Yours sincerely,